GRUMMAN

plane news

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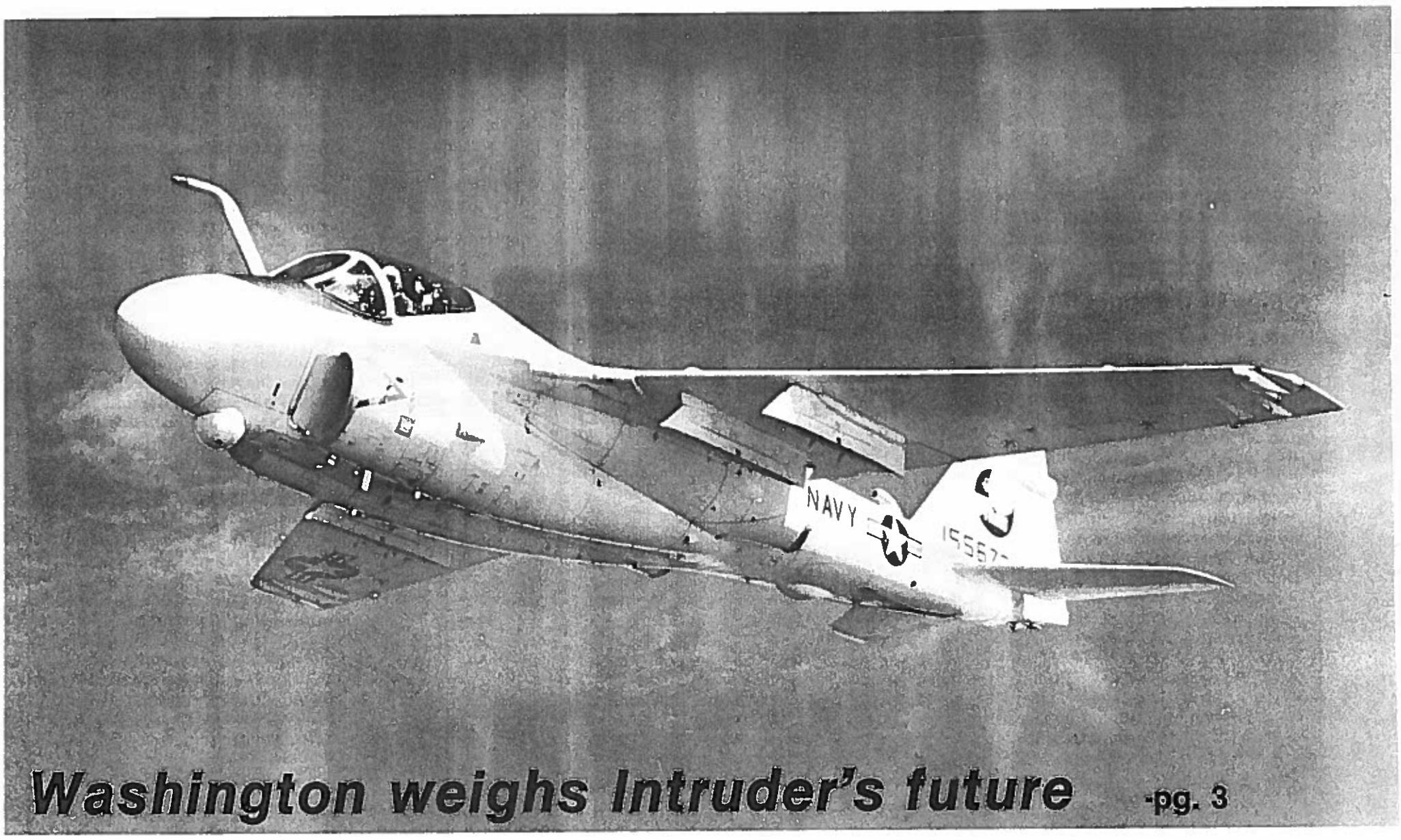

Washington weighs Intruder's future -pg. 3

EA-6B Prowlers get new lease on life

-pg. 5

Freeman elected to Grumman board

pg. 3

Drug smugglers snagged by Hawkeye

pg. 5

people

Coffee and a toast. Grummanites Bob Helst (L) and Kevin Perry marked the 40th anniversary of the Battle of Savo recently in Plant 3. During WWII, Kevin and his shipmates from the USS Quincy were rescured by the USS Ellet's crew which include Bob.

Ships in the night

Every year since 1964, Bob Helst gets a free cup of coffee on August 9 from fellow Grummanite Kevin Perry.

"I saved his life 40 years ago, and all I get is a cup of coffee," Bob says. Kevin smiles and says, "You'll get your reward in heaven."

In 1964, Bob and Kevin learned they both were involved in the Battle of Savo in 1942. Bob was a youngster serving aboard the destroyer, *USS Ellet*, while Kevin was assigned to the heavy cruiser, *USS Quincy*.

The battle took place on August 9, 1942 in Savo Sound between Guadalcanal and Tulagi in the Solomon Islands. During the night, three American ships sunk — the *Quincy*, the *USS Astoria* and the *USS Vincennes*. Over 1,000 Americans lost their lives.

"We were given the order to abondon ship," recalls Kevin who now works in Plant 3. "By the time we got to the deck, she was badly listing to one side. We walked down the side of the ship and jumped into the water."

With no life preservers, Kevin and his buddies grabbed onto empty powder cans, two-by-fours, and anything that floats. "It was very dark. We fought against the suction caused by the sinking ship. Sharks were definitely on our minds," says Kevin. "A few of the guys were fishing for them during the past few days with huge chains and hooks. You could see the shark fins in the water during the day."

Several hours later, the *USS Ellet* destroyer came to the rescue. "We didn't have any lights on," remembers Bob, who also works in Plant 3. "A lot of the guys in the water didn't know if we were friend or foe. After screaming down at the survivors in the water in good ole American English, we convinced them we were there to rescue them."

Bob and his shipmates threw ropes over the side of the ship and pulled 430 sailors to safety. "Many of the sailors were covered with oil," says Bob. "You couldn't recognize them."

Kevin adds, "We had no clothes, but everyone on the *Ellet* emptied their lockers and gave us clothes and shoes. My shoes were three sizes too big, but I wore them for the next several months."

After the Battle of Savo, Kevin was assigned to shore duty in the South Pacific, while Bob went on to become a machinist and saw many other rescues at sea. But none stick out in his mind as that day forty years ago.

Kevin never had another close call like the Savo sinking. "That was enough to last a lifetime."

Appointments

The following Grummanites recently received new assignments:

Program Management — Jerome Lester, deputy director for A-6 Production Operations; and Robert Carlo, assistant program manager, F-14 Modification Program.

Great River Operations — Patrick Francis, manager, Manufacturing Operations; Joe Moldashel, supervisor, Advanced Planning; Robert Scalise, supervisor, Requirements Planning; Raymond Finger, supervisor, Release; Richard Ferraro, supervisor, Industrial Operations.

John Arnzen, deputy director, Material Operations; Arthur Darcy, supervisor, Warehouse/Distribution; Gerald Samborsky, supervisor, Inventory Analysis; Ken Clausey, supervisor, Electrical System and Test; Harry Browne, supervisor, Electrical System.

Ronald Bush, group Warehouse/Distribution; Al Knight, group leader, Distribution/Receiving/Shipping; William Sposato, group leader/night shift, Warehouse/Distribution; George McGinn, group leader, Inventory Analysis; John Browne, group leader, Electrical Assembly Production; Daniel O'Donnell, group leader, IMR Control.

William Caputo, CSU Program manager; Walter Maier, deputy director, Engineering; Pasquale Russo, manager, Support Test; Eugene Sirota, group leader, Test Engineering; Gordon Cargill, group leader, Test Technology; John Stadelmann, section head, Manufacturing Technology; Edward Miller, group leader, Advance Technology; and Eddie Starling, manager of Production Systems.

Technical Operations — Robert Knittel, engineering specialist, ATE Engineering; Tony Fama, project manager, Supply Operations/C-2A Reprocurement Program; George Muller, project manager, A-6 Program Controls; Bill Banks Jr., group leader, Electronic Countermeasures/EA-6B Subsystems Design Group; James Seto, engineering specialist, Optical Sensors.

Bob Knoetgen, section head, System Design Analysis and Integration; Joe Cagnazzi, project leader, A-6 Laboratory; Sy Absatz, principal engineer, AEW Software Systems; Jim Riordan, project leader, F-14 System Validation and Verification; Charles Mooney, principal engineer, Programming Languages and Environments; Robert Lyon, project leader, F-14 System Design and Analysis; Hank Foglino, engineering specialist, Systems Concepts/ILS; Walt Martens, assistant to ILS vice president; Irv Cohen, engineering specialist, Systems Concepts, ILS Engineering.

It is 10 years already? *At the July pin meeting in Plant 5, Grumman Corporation Chairman Jack Bierwirth (C) joined scores of fellow Grummanites marking their service anniversaries that month. Above, with Grumman Corporation President Joe Gavin at his side, Bierwirth received his 10-year service pin from Grumman Aerospace President George Skurla. (Photo by Marie Trimborn)*

What does the future hold for Intruder?

The A-6 Intruder is at a crossroad. What happens to it over the next 10 and 20 years is now being decided by Congress, the Department of Defense, and the Navy.

The decisions are dramatic because of recent publicity concerning the competition between Grumman's A-6 and the McDonnell Douglas F/A-18. Is there a real competition? What is the future of the A-6 Intruder?

"The two planes were designed for different missions," says Dan Collins, A-6 program Director. "The Intruder was built to carry a heavy load of bombs and sophisticated air to surface missiles a long distance. The F-18, on the other hand, was designed as a replacement for the A-7. The F-18 cannot carry the heavy and sophisticated payloads of the A-6. Nor can any other carrier-based aircraft."

Yet, the Navy had originally dropped the A-6 from its five-year plan.

The reason for this was explained in a letter from Secretary of the Navy John Lehman to Dr. Richard DeLauer, the Under Secretary of Defense for Research and Engineering.

Lehman pointed out that the Navy and the Marine Corps wanted to take a look at future requirements for medium attack aircraft in light of the introduction of the F-18, as well as the growth potential of the A-6 design. The A-6 buy was temporarily deleted from the five-year plan while these considerations were explored.

'The Navy has to choose one of three ways to solve its medium attack problem through the century'

"In view of these requirements," wrote Lehman, "and since the A-6 design still has such excellent potential for growth, we are now considering an upgrade of the A-6E which can provide the ordinance carrying and stand-off capabilities required by our medium attack force over the balance of the century."

While the Senate Armed Services Committee deleted funding for A-6s for fiscal year '83 (the House Armed Services Committee approved eight in its budget) to streamline the budget, the Navy left it out of its planning memorandum to buy time.

Evolutionary capabilities

As Plane News was going to press, the House/Senate Authorization Conference Committee had met and decided to fund eight A-6s for fiscal year '83. The Navy is supporting continued procurement of the Intruder. For now, it will be the A-6E TRAM — but by about 1987, it will be the A-6F.

The A-6F is an "evolutionary update of the A-6E," says Collins. Capabilities of the "F" version have not yet been decided, but a number of changes are under consideration.

It may have short takeoff and landing capabilities. Grumman might do this, says Collins, using tilting exhaust nozzles and high-lift flaps.

Other changes might include the incorporation of improved radar systems, upgrading both sides of the cockpit with the latest in display technology, and switching over to the Navy's new standard AYK-14 computer system.

STOL demonstrator

The Navy could give Grumman a contract for an A-6 STOL (short takeoff and landing) demonstrator early next year; a contract for preliminary engineering work on the A-6F could come in early '84. At present, the STOL demonstrator project is running parallel to work being done on the proposed A-6F.

The Navy and Congress are sure they must meet the need for a medium attack aircraft for the rest of the century. However, they have expressed concern about the cost of all programs.

How about multiyear?

To ease that concern, Grumman proposed that the A-6 program be placed under multiyear contract. Collins notes that this would make the program much more cost efficient, saving the government some 19 percent over the fiscal year '84-'87 period.

"The Navy has to choose one of three ways to solve its medium attack problem through the century," says Collins. "It can opt to continue with the A-6E TRAM, update the A-6E TRAM, or come up with some new aircraft in the 1990's."

Washington update

With House and Senate conferees in agreement, it only remains for the votes of all members of both houses of Congress to approve the number of Grumman aircraft that can be built with fiscal year 1983 funds.

This vote was scheduled for last week, after the Plane News deadline. Once Congress approves the numbers, legislation must then be drawn up and approved to appropriate the funds for each aircraft program. This legislation should be through Congress by the end of the year. The funds will be for 1984 production.

The compromise authorization bill brings to terms differences between the House and Senate Armed Services Committees' requests for Grumman aircraft. The compromise bill calls for authorization for 24 F-14s (down from the present 30), eight A-6Es (down from 12), six each of E-2Cs and EA-6Bs (same as currently) and the conversion of nine F-111Bs into EF-111 electronic warfare aircraft for the Air Force.

GRUMMAN plane news

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Freeman elected to board of directors

Orville L. Freeman, chairman of the board of the Business International Corporation and former Secretary of Agriculture in the Kennedy and Johnson administrations, has been elected to the board of directors of Grumman Corporation.

He will fill the newly created directorship until the 1983 annual meeting, when he will stand for election to a regular term.

Freeman held the cabinet post from 1961 until 1969, following three successive terms as governor of Minnesota, 1955-1961. From 1969 to 1970, he was president of EDP Technology International, Inc., and in 1970 was named president of Business International Corporation. From January to September 1981, he also served as the firm's chief executive officer; he was elected chairman of the board in September 1981.

Born in Minneapolis, Minnesota, Freeman graduated from the University of Minnesota. He served as a Marine Corps officer from 1941 to 1944. After receiving a law degree from the University of Minnesota in 1946, he was admitted to the Minnesota Bar in 1947.

He is a director of Natomas Company, Worldwatch Institute, the Overseas Development Council and the World Future Society. He serves on the Executive Committee of the Advisory Council on Japan-U.S. Economic Relations and is chairman of the Advisory Committee of the Hubert H. Humphrey Public Affairs Institute (University of Minnesota), the U.S. delegation of the India-U.S. Business Advisory Council and the U.S.-Nigerian Joint Agricultural Consultative Committee. In June 1980, he was named chairman of the Board of Governors of the United Nations Association of the USA.

Freeman is the author of World Without Hunger and Multinational Corporation: Instrument for World Growth.

Orville Freeman

Lunar rover signs up for one-year hitch

There may be good news for the dogface soldier: robotics is coming to the front lines!

The army has begun a study of remotely controlled tactical vehicles (RCTV) at Fort Benjamin Harrison in Indianapolis, Indiana. Grumman has leased to the Army its Lunar Roving Vehicle, developed more than a dozen years ago for the Apollo Space Program, for the tests.

Send the robot

The lunar rover carries sophisticated electronic gear into difficult, combat-like environments. The Army wants to see if this unmanned vehicle could multiply the effectiveness of the infantryman.

"Robotics is permeating the military in much the same way it has entered the commercial sector," says Ed Markow. "With robotics, the Army can use our country's technological sophistication to overcome any numerical superiority held by our adversaries."

Markow, who invented the lunar rover's bowl-shaped, flexible wheels, is the program director.

The Army will use the rover for a one-year study, Markow reports. He says that these vehicles, controlled from safe locations by wire, fiber-optic cables, wireless communications or operating independently under on-board computer control, could detect mines, perform sentry duty around base camps, carry and fire antitank weapons, resupply troops in forward areas or gather intelligence behind enemy lines.

Biological, chemical and radiation hazards would not affect them. They could even be expendable for certain missions or have stealth-like qualities.

The potential abilities of such electronic warriors are impressive, Markow points out.

"The vehicle looks for images, identifies the images and then decides what to do, such as in its sentry role. That is the primary mission now being studied at the Soldier Support Center in Fort Benjamin Harrison," he explains.

The electronic systems these vehicles will carry can make fine distinctions, he says, between objects they "see." They can, for example, tell the difference between friendly and enemy tanks. They compare the image of the tank and the sounds it makes to images and sound characteristic of known vehicles, information stored in on-board computer memory banks.

The vehicle can then transmit what it sees back to soldiers controlling it, or even attack a foe.

Force multiplier

RCTVs are an outgrowth of studies conducted by the War College at Fort Carlysle, Pennsylvania. These studies, called AirLand Battle 2000, outlined possible combat situations that could occur at the end of the century and indicated what equipment and strategies would be needed to win such battles.

Tin soldier. The Grumman Lunar Roving Vehicle, developed more than a dozen years ago for the Apollo Space Program, will undergo rigorous tests by the Army.

The military learned that it needed to make more use of force multipliers, Markow explains. Force multipliers increase the effectiveness of the individual soldier or weapon systems. Pave Mover is another multiplier. It can guide multiple warheads launched from a rocket or guide a number of attacking aircraft against a number of targets. Grumman is currently competing against Hughes Aircraft at the White Sands Missile Range for the contract to build this radar system.

In addition, Grumman has been selected by the Army's Ballistic Research Laboratory to do a preliminary design and analysis of a Robotic Mobile Land Mine. A follow-on effort to build a robotic mobile mine demonstrator is currently being discussed with the Army.

According to Jerry Kirsch, the project engineer, the mine represents "a blend of 'fire and forget' weapon technology, autonomous vehicle technology, the emerging artificial intelligence sciences and industrial robotics."

Large numbers of these small vehicles will be programmed to fly, under their own power, to a target zone. Once there, the artificial intelligence on board will scan the area for enemy armored vehicles and attack them.

Hellcat's in the Cradle

Long Islanders will be able to see a Grumman F6F-5 at the Cradle of Aviation Museum in Mitchell Field, thanks to Mrs. William Schwendler Sr., widow of one of the company founders. Mrs. Schwendler, in photo at right, funded the transportation of the Hellcat from Quantico, Virginia; it is on long-term loan from the Marine Museum there.

Grumman Aerospace President George Skurla (in photo, far right) praised Mrs. Schwendler and the accomplishments of her late husband at a reception in the museum earlier this month. Bill Schwendler headed the team that designed the historic World War II fighter. (Photos by Jim Wagner)

Zeferetti calls E-2C 'unmatched' drug-buster

Since October 1981, the E-2C Hawkeye has kept a lot of drugs off the street. The U.S. Navy has been providing E-2Cs and crews to help the Customs Service detect aircraft which smuggle drugs into the United States.

Continue mission

The initial program was a success — responsible for the seizure of 45 aircraft and illegal drugs totaling $360 million in street value during the first three months — and Congressman Leo Zeferetti (D-NY) would like to see that work continued.

On August 10, Zeferetti, chairman of the Select Committee on Narcotics Abuse and Control, urged a House Appropriations Subcommittee on Defense Appropriations to provide money to the Navy to continue its anti-smuggling patrols.

Zeferetti recommended the provision of additional resources to the Navy, as well as the inclusion of this mission in the Navy's training cycle. He also suggested that the subcommittee consider the acquisition of "a limited number" of E-2Cs for the Navy to conduct this mission.

Major threat

Said Zeferetti, "The use of E-2Cs has continued and is a vital part of the operation now being conducted as part of the vice president's task force in south Florida. The E-2C presents such as threat that the drug traffickers are avoiding the vast patrolled areas and are either laying low or diverting to less patrolled areas of our coast. . . . We need a national strategy which means providing additional resources to other areas also critically affected by the influx of illegal drugs."

Wide support

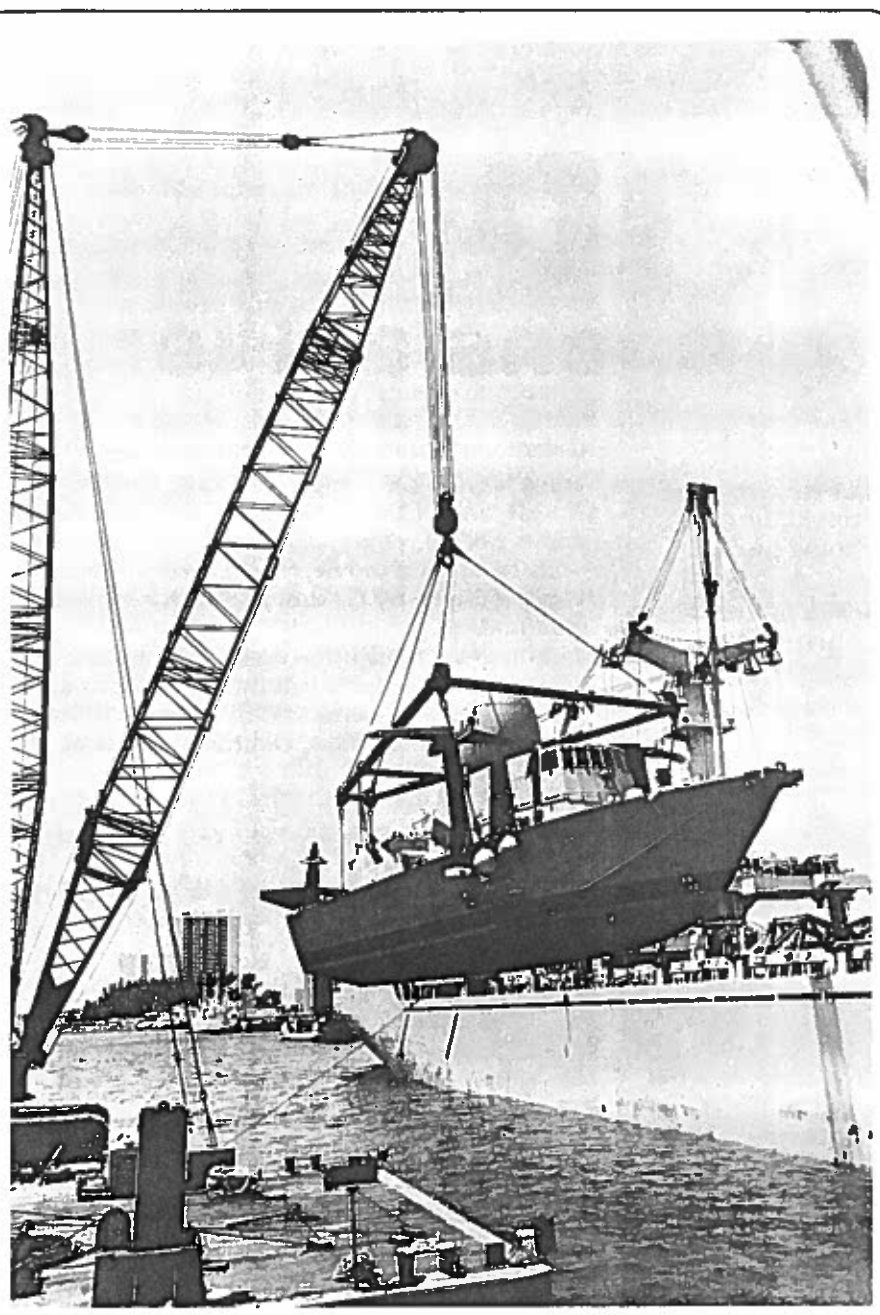
Jim Philbin, E-2C program director, notes that there is enthusiasm for the Hawkeye from many corners.

"Vice President George Bush, and Treasury Secretary Donald Regan are supporting the program," says Philbin. "It has the Navy's backing as well."

Zeferetti has been outspoken in his advocacy of the Hawkeye's new role since June 1981 when he visited Bethpage and got a close-up look at the E-2's capabilities. The Brooklyn congressman told the subcommittee that the Hawkeye is ". . .unmatched by any other existing means to detect and track the type of aircraft used in drug smuggling."

Other benefits

In addition to curtailing illegal drug traffic, Zeferetti pointed out that the patrols contribute to national security by making our borders less vulnerable to all kinds of intruders, including terrorists.



Sea Wings. *Shimrit (Guardian) is on its way to Israel. Lifted slowly onto a freighter at Palm Beach Florida in mid-July, the 84 foot hydrofoil was shipped to Haifa where it will serve in the Israeli Navy. Built by Grumman at the Latana Florida Boatyard, the Shimrit can attain speeds up to 50 knots (about 57 mph) when foilborne.*

Modifications to make Prowlers better than ever

A Prowler's a Prowler you say? Oh, no. Come May 1984, the Navy will have three different versions of Grumman's EA-6B electronic warfare aircraft, each version with different logistics requirements.

When the first production Increased Capability (ICAP-2) Prowler is delivered to the Navy in 1984, the Navy will also be returning Expanded Capability (EXCAP) Prowlers to Grumman to convert them to the ICAP-2 versions.

This modification and Standard Level Depot Maintenance (Mod/SDLM) contract to upgrade 14 of the 16 EXCAPs still in service is worth $110 million.

Second generation

The Navy received the EXCAP Prowlers in January 1973. They were the first updated version produced after the original EA-6B, which had gone into service two years earlier.

"When modified, says Larry Buck, EA-6B assistant program manager-Modifications, "they'll be like brand new aircraft."

All teardown, modification and reassembly of the aircraft will be done at the Calverton, Long Island facility, says Buck. "We're sure this program will be successful because of the ability and modification experience of the Grumman people at Calverton."

The EXCAP Prowlers will begin arriving at Grumman during the fourth quarter of 1983; work will start shortly thereafter. The first delivery of modified aircraft is scheduled for December 1984; a modified Prowler will be returned to the Navy at the rate of one every other month through 1986.

There is a lot of wear and tear on these aircraft, Buck says. EA-6B aircraft are seeing a tough operational environment because of increasing deployment requirements and longer periods of deployment. "In addition, with three operational configurations of EA-6B aircraft, you have to support each differently," he adds.

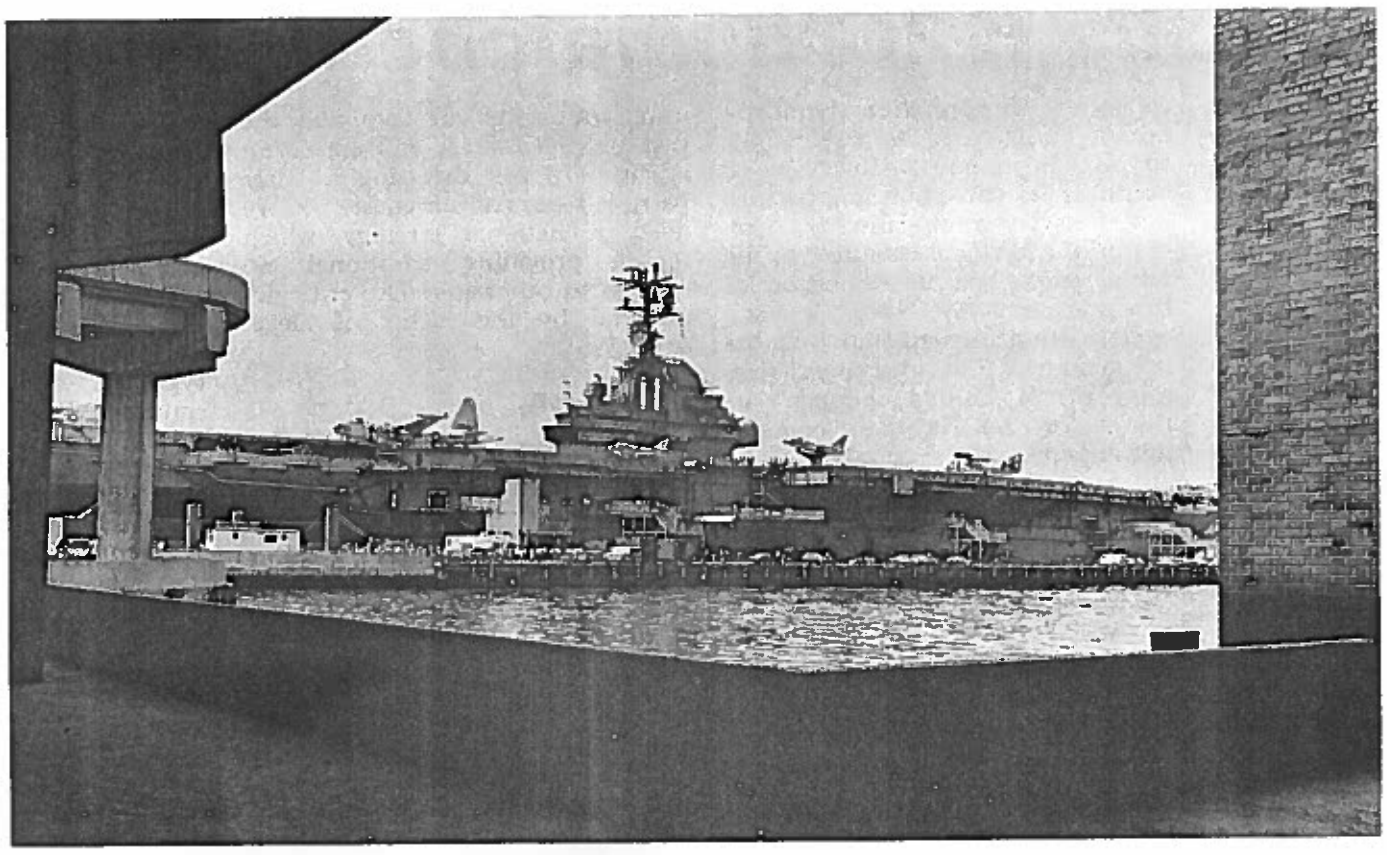
"Whenever a squadron gets ready to deploy, the Navy has to be sure the correct support equipment is on hand. Once the Mod/SDLM program is completed, the Navy will have only the ICAP-1 and -2 versions to support."

Besides cleaning up the effects of ten years of operational service and thousands of hours of flight time, the Mod/SDLM program includes total rewiring of the aircraft. In addition, the modified aircraft will get all the new and improved systems that the production ICAP-2 aircraft will have.

These include the capability to accommodate the new ICAP-2 exciter, which generates a variety of jammer modulations tailored to specific threat radars.

Major improvements in the tactical software will be made and an onboard program loader will be added. In addition, a new digital display system, navigation system and the Navy's new standard computer, the AYK-14, will be incorporated.

"The Navy will be getting the benefits of the latest generation of aircraft at less than the cost of a new aircraft," says Buck, "and also have one less configuration to support in the fleet."



INTREPID

Sea-Air-Space Museum opens at Pier 86

Once her decks swarmed with fighting men in the Pacific theater of World War II. On August 3, the people who strolled the decks of the U.S.S. Intrepid were the first visitors to the new Sea-Air-Space Museum, permanently docked at Pier 86 at West 46 St. in Manhattan.

The official ribbon-cutters were Secretary of the Navy John Lehman, New York City Mayor Ed Koch, and Intrepid Foundation chairman Zachary Fischer. Grumman, the museum's first corporate sponsor, was represented by Grumman Corporation President Joe Gavin.

After Gavin presented Koch with a copy of the Intrepid poster, Koch expressed his gratitude and promised that the poster would be displayed at City Hall.

"Grumman is the best company in the country," said Koch, "and it's right here in New York."

The museum is the length of three football fields and boasts aircraft from the earliest days of aviation right through the space age. Seven Grumman planes are onboard: two S-2 Trackers, a WF-2 Tracer (also known as the Willy Fudd), an F 11-F Tiger, an F6F-3 Hellcat, and a TBM Avenger.

A 15-minute movie, "Air Power at Sea," was produced by Grumman for the Intrepid Foundation.

The museum is open seven days a week from 10 a.m. until 8 p.m. Admission is $5 for adults, $4 for senior citizens, and $2.50 for children. For more information, call the museum at (212) 245-0072.

... and Hizzoner ♥ Grumman

Poster premier. *Grumman Corp. President Joe Gavin presents Mayor Koch with a copy of the Intrepid poster. (Photos by Bob Settles)*

He likes it. *How're we doin'? Koch called Grumman 'the best company in the country' and vowed to display the poster at City Hall.*

Snip. *Intrepid Foundation chairman Zachary Fischer (L), Secretary of the Navy John Lehman (C), and Mayor Koch (R) cut the ribbons representing the 50 states.*

Irvine focuses on high tech for surveillance satellites

IRVINE, CALIFORNIA — While Rocky Balboa needs the "eye of the tiger" to recapture his heavyweight crown, Grummanites here are looking to the "eye of the frog."

At this Orange County facility, 60 Grummanites are developing and refining mosaic sensor technology for advanced space surveillance satellites. The ever-increasing threat of sophisticated missiles and warheads dictates that the U.S. needs quicker, more sensitive detection systems for its national defense. "We believe that mosaic sensors will fill the bill for the next generation of space surveillance satellites," says Kirk Keer, Irvine Operations general manager.

Today's surveillance satellites scan an area of earth. With mosaic sensors, a satellite can stare at a scene and detect movement or change.

This staring infrared system for space surveillance is often compared to the eye of a frog. A mosaic of thousands of tiny receptors in the frog's eye detects and tracks an object in flight. The receptors transmit the information to the frog's brain — its data processing system. The brain then sends that data to the ground for decisions. All this time, its sophisticated mosaic eye continues to watch for other prey.

Grumman Aerospace has been developing its mosaic sensor concept since 1974, and established Irvine Operations as a facility dedicated to the technology in 1976.

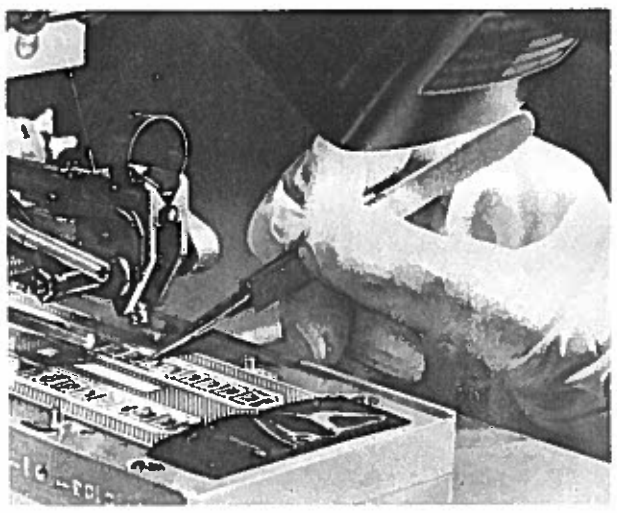
There are definite advantages to setting up shop in this Southern California community. "Our customer — the U.S. Air Force Space Division — is nearby," says Joe Mularz, Technical Specialist. "And so are our competitors — Aerojet, Hughes, Rockwell and some of our subcontractors."

Because they work in the heart of the space surveillance development area, Grummanites can keep in close touch with the Air Force Space Division and have access to numerous seminars and lectures on this fast-developing technology. In addition, the company can draw from the local workforce of space surveillance specialists.

Irvine today has a cadre of experts in optics, chemistry, micro-electronics, cryogenics, and lasers.

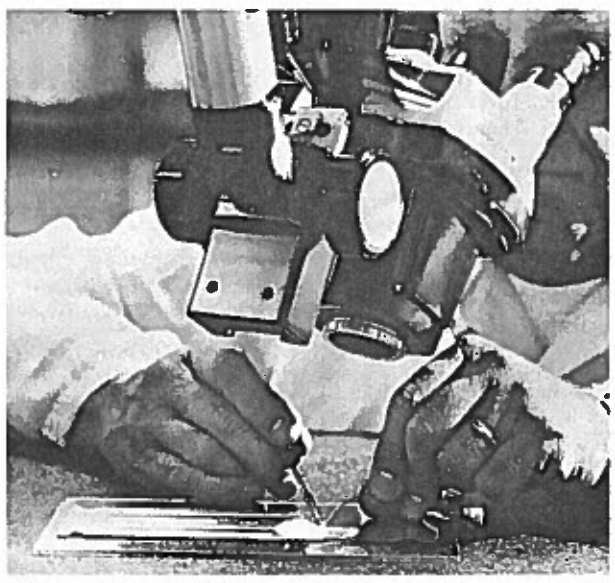
These surveillance specialists contribute to these three programs:

Advanced Warning System (AWS) — As early as 1986, the Air Force Space Division could enter full scale development for its next generation of space surveillance vehicles using mosaic sensor technology. During various test and development phases, Grumman is aiming to prove that its mosaic sensor will supply future satellites with fast, accurate, quick response detection.



In focus. *Using microscopes, Grummanites bond wire to the processing chips in a focal plane module.*

Balloon Altitude Mosaic Measurements (BAMM IIA) — Under a $3.5 million Air Force contract, Grumman is building a mosaic focal plane sensor experiment that will be carried aloft in a helium balloon in 1983. The mission:



Easy does it. *Tony Dominick attaches lead frames to a focal plane module.*

to demonstrate that Grumman's mosaic starer detection system works in a flight environment.

Satellite Material Hardening (SMATH) — This USAF contract calls for Grumman to study and measure the mosaic focal plane arrays' vulnerability to laser attack and to test laser countermeasures.

"Both BAMM and SMATH programs are vital contributors to our overall AWS program," states Mike Bennett, AWS acting program manager. "For instance, the results from the BAMM flight test next year could definitely have a bearing on our refinement of our mosaic sensor package for AWS."

The BAMM, a technology forerunner of the AWS mosaic focal plane, is part of the military's "fly before buy" philosophy.

"Only 1,024 mosaic detectors will be part of the BAMM project, while hundreds of thousands — even millions — would be carried by a future advanced warning satellite," reports Dick Fischetto, BAMM program manager.

Still, the BAMM flight demonstration will enable Grumman to make design improvements and improve its present fabrication techniques.

Laser prey

The AWS program will also draw upon the expertise and knowledge acquired during the present SMATH program.

"Surveillance satellites are the most vulnerable targets to laser attack — from space and from the ground," says Ernie Rousseau, SMATH program manager. There sensitive imaging equipment — mosaic sensors, optics, etc. — could be temporarily blinded or permanently damaged by a laser beam that wasn't intense enough to cause mechanical damage."

As the USAF's principal mosaic sensor contractor for SMATH, Grumman is in the process of measuring the vulnerability of mosaic focal plane arrays from laser attack. "We will then analyze and test various countermeasures to this laser attack," says Rousseau. "Such countermeasures derived from the SMATH program could be incorporated into future AWS."

Doing your homework

Building upon such programs is a recurring theme for Grumman's quest for space surveillance contracts. "Over the past eight years, Grumman has been refining its mosaic sensor technology through such studies as the Mosaic Sensor Program (MSP), HALO, and Mini-HALO System Study," says Keer.

The ultimate goal: to supply the Air Force Space Division with mosaic staring system for its next generation of advanced warning satellites.

"Grumman is not the only company working on mosaic sensor technology," states Keer, "but the Grumman approach — the Z-axis concept — is unique in the aerospace industry."

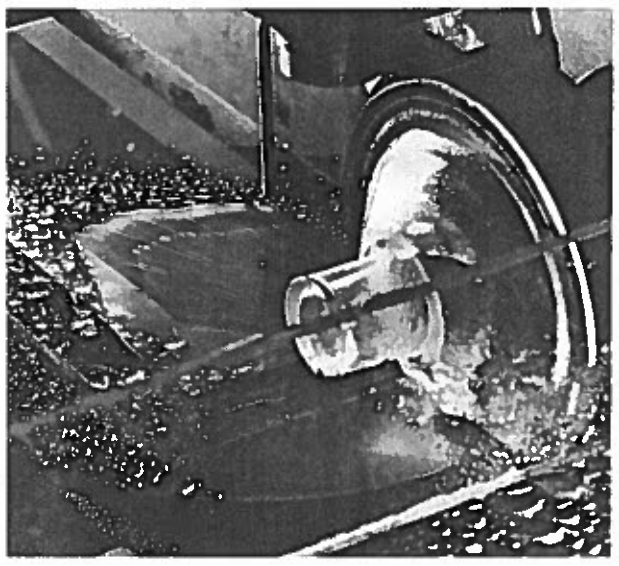
While everyone else is using two dimensions, Grumman is using three — the X, Y, and Z axes. "We can package more electronics on each focal plane," says Keer. "Our method also helps to eliminate the problem of gaps or blind spots in the field of view; repairs and rework are a lot easier, too."

Finding the right partner will be an important part in winning the Air Force Bid — worth approximately $2.2 billion.

"Our industrial partner would build the satellite itself," reports Keer. "Grumman is interested in the mosaic sensor package — everything from optics to focal planes to power pack for the sensor itself. That's our speciality."

At Irvine Operations, Grummanites are confident that their mosaic sensor concept is the answer to the nation's critical need for a faster, more sensitive detection system.

When the Air Force gets ready to begin production of its next generation of advanced warning satellites, "Grumman will be the frontrunner," predicts Keer. "We're doing our homework. We've got the dedication, the technology, and the know-how."



Cut down. *This high precision diamond saw is use to trim edges of a ceramic layer.*

service milestones

40

Ralph C. Straub, Insp-Mech. (1)
Andrew J. Pryor, Prod. Cntl-Parts Cntrl. (2)

35

Michael Calamita, Heat Treat (2)
Anthony S. Durka, Major Assy. (2)
Marvin C. Weil, Prod. Release & Anal. (2)
George H. Schalck, Mach. Shop (2)
Virgilio Cagna, Tool Cntrl. (2)
Fred J. Berlenbach, Model Shop (5)
Joseph Bascone Jr., Adv. Plnng. (5)
August C. Sarrantonio, Mech. Design Staff (5)
Claremont C. Jiran Jr., Aero Test (5)
John Razzini, Repro Servs. (15)
Donald W. Bone, Veh. Des. M/S (35)
Stanley Wondolowski, Mech. Detail & Fin. (43)

30

August Lopes, CTR Sect-Sub. Assy. (2)
Robert J. Allen, Wing Inner Panel & Combo (2)
Donald M. Valentine, Hydraulics (2)
Donald B. Weaver, Propulsion Test (2)
Alfred N. Martin Jr., Propulsion Test (2)
George G. Trotta, Stockrooms (2)
Bradford Ellison, Central Stor. & Ret. (2)
Joseph E. Zaremba, Maint-Facil, Equip. & Gen. (2)
John Balke, Alodine (3)
John A. Greene, Alodine (3)
Daniel A. Moore, Spotweld (3)
Doctor B. Crews, Assemblies (3)
Albert G. Kaval, Honeycomb Prefit. (3)
John Simpson, Honeycomb Final (3)
Henry P. Gage, Plt. Servs. (3)
John A. Glaser, Insp-Mech. (3)
Charles D. Warren, Matl. Mgt. M/S (4)
Marie Crescenti, Food Service (5)
George Myers, Struct. Test (5)
Bernard H. Waag, Operations (5)
Hector F. Pemberton, Fluids (6)
William R. Mytko, Ordnance (6)
Frank Posillico Jr., Structures (6)
Herbert Podeyn, Prod. Deputy & Statn-Foreman (6)
Matthew Macchio, Electronic/Elect. Prd Supp. (7)
Wolfgang J. Nauke, Maint-Rearrangement (12)
Sidney Hale, ILS Mech. Equip. Eng. (25)
Chester E. Downing, Pricing & Anal. (30)
Robert Murphy, Subcontractor Surveil. (30)
Richard E. Kopp, Sys. Sciences (35)
Hurlow W. Henle, Train Proj. Mgr. (39)
Bruno J. Germano, Land Gear Carrier Suit. AB/ARM (40)
Helen Rau, Repro Servs. (43)
Daniel A. Vignati, Mech. Struct. & Assy. (43)
Victor Rongo, Invent. Mgt. (44)
Thomas Russell, Cammacorp Nacelles (77)
Peter Taffner, Pwr. Plant (77)
Frank Laurito, Stuart Tool Eng. (77)
Thomas E. Lawrence, Site Mgt. (200)
Paul P. Thiergardt, Mfg. Offsite Supp. (279)

25

Joseph V. Averso, Prod. Cntl-Parts Cntrl. (1)
Edward V. Scicchitano, Pwr. Plt. Des. (1)
August K. Kubart, Mfg. Factory Plnng. (2)
William R. Brown, Jigs & Fixtures (2)
Franklyn Smith, BPA Qual, Eng. Prod. Supp. (2)
George F. Albert, Convent. Machs. (3)
Henry Meyer, Convent. Machs. (3)
Nicholas V. Descetto, Details (3)
Paul J. Bach, Model Shop (5)
Donald E. Fahey, Maint-Rearrangement (6)
Ralph Warren, Structures (6)
Francis E. Hurley III, Q.C. Lab. (10)
Herbert O. Dettmering, Loads & Crit. (35)
Richard A. Oman, Fluid Dynamics (35)
Manning H. Dandridge, Veh. Des. M/S (35)
William C. Adams, Spc. Prototype-Temp. (43)
Calvin J. Colonel, Insp. Elec. (43)
Raymond W. Single, Tech. Ops. (77)

20

Charles R. Miller, Prog. Contracts (40)
Richard A. Fox, Elec. Box Pan & Draw Fab. (43)
Edward Hirsch, GSE Sched. (43)
Joseph V. Troiano, Resources (43)
Michael W. Kearns, Insp. Elect. (43)
Paul P. Engasser, Prod. Supv. (44)
Henry G. Faulhaber, Invent. Mgt. (44)
William Richter, Administration (66)
Frederick E. Jansky, Tech. Ops. (77)

George W. Moles, Prod. Superv. (2)
John F. Martinez, Proj. Management (2)
Barrie A. Dehnert, Distrib. Servs. (2)
Carl R. Murray, Food Service (2)
William J. Johnson, Tool Fab. M/S (2)
Arthur Spooner, Convent. Machs. (3)
William A. Knight, Assemblies (3)
David L. Walker, Honeycomb Prep. (3)
Galen M. Becker, Indust. Safety/Hygiene (3)
Albert R. Bodamer, Sys. Test/Flt. Integ. (4)

Stanley Hirsch, Antennas & Radomes (1)
Ralph E. Bauer Jr., Prog. Plnng. Cntr. & Budg. (1)
Vincent M. Frazzitta, Sub-Assy. Major (2)
Arthur Lim, Mech. Struct. & Proto. (2)
James Y. Eng, Propulsion Test (2)
John J. Franciscovich, Propulsion Test (2)

Harold C. Allen, FTT Syst. (4)
Ronald W. Sadler, Sys. Test (5)
Phillip E. Burkhardt, Computer Architect. (5)
Robert T. McNiece, Adv. Aircraft Sys. (5)
Jean M. McNamara, Financial Op/Secretaries (5)
Frederick A. Kaufman Jr., Cust. Reqts. (5)
Joseph J. Conlan, Bus. Mgmt & Anal. (5)
Walter R. Martens, Plt. Protection (6)
Ernest Baker Jr., Fluids (6)
Millard A. Northridge III, Elec. Install. (6)
John McCardle, Elec. Install. (6)
Vincent J. Maggio, Elec. Install. (6)
Raymond A. Raynor, Elec. Install. (6)
Lillian E. Baldissard, Prod. M/S (6)
Rocco J. Vasti, Prod. Release & Anal. (6)
Warren Thompson, Final Assy. Insp. (6)
Arthur S. Doyle Jr., Flt. Saf. & Supp. (7)
Michael P. Healy, FTT Flt. Dynamic & Load (7)
Henry L. Kreymborg, Structures (7)
Domenico Capobianco, Structures (7)
Felix P. Iasevoli, Flt. Ops. (7)
Henry A. Myslborski, Avionics Dev. (7)
Thomas E. Reilly, Electronic/Elec. PRD Supp. (8)
William D. Brown, Boeing (9)
Nero Bell, Maint-Facil. Equip & Gen. (15)
William R. Gorman, ILS Tech. Illus. (15)
Miles G. Merritt, Matl. Hand. Sys. & Pkg. Tech. (17)
Rosario Sciglio, ILS Digital TPS Eng. (25)
John J. Duffy, ILS Mech. Equip. Eng. (25)
Rosario J. Cannizzaro, Safety & Maint. (25)
Thomas J. Swearingen, Radar (25)
Eugene T. Ceraso, Q.C. Quality Eng. (25)
Charles R. Campbell, Mach. Parts/Matl. (30)
Andrew F. DiMarco, Fin. & Reg. Reports (30)
John J. Lombardi Jr., Space Prog. Qual. Mgt. Hist. (30)
Hermann K. Lohmann, ILS Mech. Equip. Eng. (35)
Peter Pisani, Comput. Equip. Des. Stf. (35)
Calvin H. Weiser, Fluid Dynamics (35)
Milton J. Hosek, Instruct/Anal. (39)
Owen F. Pettit, ILS Digital TPS Eng. (40)
Vincent J. Pernice, Envir. Cntrl. Des. (40)
Berger Peterson, Crew Sys/Equip. Integ. (40)
Bernard Kram, Life Sciences (40)
Gustave J. Morgenstern, Veh. Liaison Eng. (40)

(Continued on page 10)

J. Averso | A. Kubart | W. Brown | F. Smith | G. Albert | H. Meyer | P. Bach | D. Fahey

R. Warren | F. Hurley | H. Dettmering | R. Oman | M. Dandridge | W. Adams | R. Single | J. Rietschlin

What did you do on your summer vacation?

'I got a job at Grumman'

"It's always tough to get a summer job," said Thomas Warren, a Stony Brook sophomore majoring in Physics who is spending his vacation in the Small Parts Fabrication department of Plant 3. "College students don't have much field experience in their major, so employers are leery of hiring them. There is a lot of competition for a small number of jobs."

For the typical college student, finding employment can be a difficult and frustrating experience. While the competition is keen and the choice of fields limited, the prospects for summer jobs at Grumman are not out of reach.

"We received about 2,000 applications this year," says Employment manager Dan Nettuno. "Of that number, 600 or so were hired."

Resume building. *Aimee Baron believes her work experience at Grumman will help her land a job after graduating from C.W. Post College.*

'There is a lot of competition for a small number of jobs'

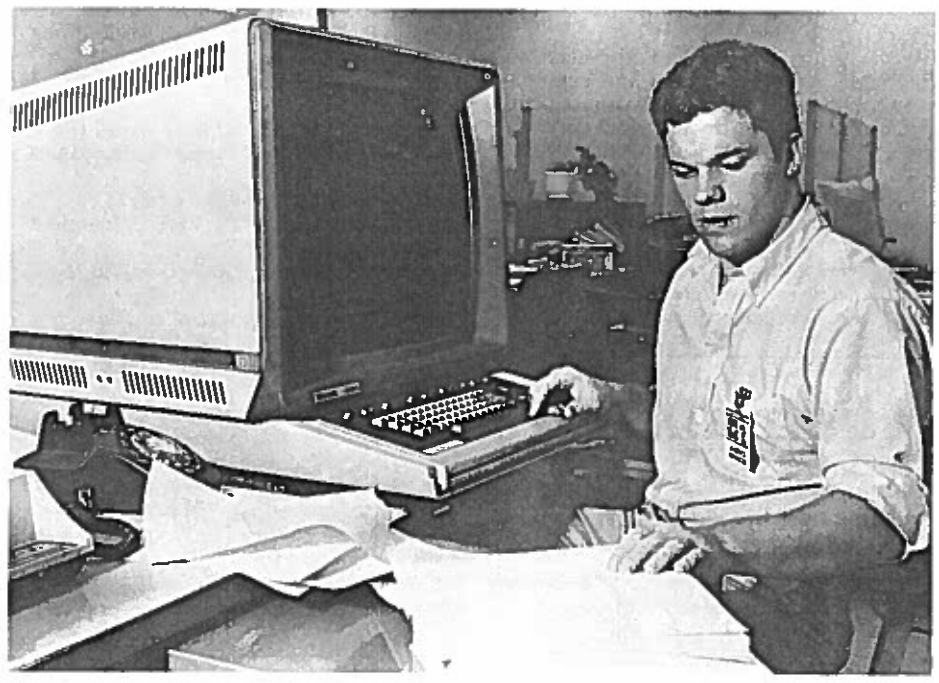
Nettuno says that the number depends on the budget and that anywhere from 500 to 600 students are hired each summer.

Applicants must have completed their freshman year in college, and have one parent employed at Grumman. Priority is given to those students whose parents have been employed by Grumman the longest, as well as to students who are returning for another summer. Grumman scholarship winners have the opportunity to work for all their summers, and may be offered a full-time job when they graduate if an appropriate position is available.

"There seems to be a real unity among the people here at Grumman," says 1981 Grumman scholar Ed Benack. "If you have a problem, they won't just turn their heads — they'll try to help you. It's kind of a family atmosphere here."

A computer science major at Cornell University, Benack worked on wiring of the F-14 forward section in his first summer at Plant 1. This summer he was assigned to the Software Analysis department in Plant 35.

"For what I've learned, I'd say that working in Software Analysis gave me more," says Benack. "The time I get to work on the computers is valuable to my career."



Computer whiz. *A computer science major at Cornell University, Grumman scholar Ed Benack spent the summer working in Software Analysis in Plant 35.*

Attention to detail. *Tom Warren says, "It's tough to get a summer job." A physics major at Stonybrook, Tom worked in Small Parts Fabrication in Plant 3.*

While most student plans focus on graduation, a few students are hoping that their summer jobs turn into full-time jobs. Such is the case of Aimee Baron, an assistant secretary at Plant 2. Baron is studying liberal arts at C.W. Post College but hopes to come back to Grumman when school is over.

"I'm not sure what I want from college," says Aimee. "Working this past summer at Grumman has given me something that I wouldn't get from school."

Aimee feels that the most important part of Grumman is its people. "The people here are very friendly. When somebody asks me where I work, it's nice to say that I work for Grumman. . . I feel proud."

'If you have a problem, they won't just turn their heads — they'll try to help you'

While almost all of the students are sons and daughters of Grummanites, a few exceptions are made for students who have exceptional talents in engineering.

One such student is Kenneth Hair, a mechanical engineering major attending Clarkson College. Hair works for the Flight Control Group section participating in the backup fluidic flight control system in Plants 35 and 14.

"It deals with hydraulic technology which is what I'm really interested in," says the native of Orchard Park, New York, a suburb 20 miles southwest of Buffalo. "I feel fortunate to be working here and I hope I can work here after I graduate."

This summer was another success for the student program, says Nettuno. "It's a big job to organize it and get it rolling every year," he adds, "but it always works out well — for the students, and for Grumman."

This article was written by Jon Diat, a summer student working in Public Affairs at Plant 5. A junior at the University of Buffalo, Jon is majoring in Journalism and Public Relations. (Photos by Bob Settles)

Autumn tourneys

- ☐ Horseshoe — single
- ☐ Horseshoe — doubles
- ☐ Handball — single
- ☐ Handball — doubles
- ☐ Paddleball — doubles

Name .....

M/S ..... Ext. .....

Partner .....

M/S ..... Ext. .....

Mail to Recreation, A-01-28A, to arrive by Sept. 10

Sept. is sign-up time

September is a big month for those of you who play handball, paddleball or horseshoes. Tournaments to find the best practitioners of those three sports begin on Monday, September 20.

Bethpage Community Park is the site of the handball and paddleball tourneys. Horseshoes will be pitched in the pits on the north side of Plant 3.

There'll be separate tournaments in all three sports for the folks at Calverton and Great River.

To sign up, fill out the form on this page and send it to Grumman Recreation, Mail Stop A01-28A, no later than September 10.

obituaries

JOHN DOWELL of Machine Shop, Pl. 56, died July 14 at the age of 54. He had been with the company since 1967 and resided at 7472 Rabon Ave., Baltimore, Md.

FRANK H. NEUMAN of Machine/Tool Shop, Pl. 77, died July 15 at the age of 64. He had been with the company since 1959 and resided at 4636 S.E. Circle Dr., Stuart, Fla.

WALLACE M. COLLINS JR. of Software Support, Pl. 14, died July 18 at the age of 48. He had been with the company since 1956 and resided at 179 Brittle Lane, Hicksville.

WILLIAM GRECO of Wing Inner Panel and Combo, Pl. 2, died July 20 at the age of 62. He had been with the company since 1967 and resided at 157 West 3rd Street, Deer Park.

LEO T. HACKETT of PPO-F-14, Pl. 1, died July 24 at the age of 63. He had been with the company since 1968 and resided at 251 Evelyn Rd., Mineola.

JAMES E. HALE of Quality Control, Pl. 77, died July 26 at the age of 50. He had been with the company since 1966; his address was P.O. Box 1781, Stuart, Fla.

WILLIAM J. MATZINGER of ILS Commodities Control, Pl. 1, died Aug. 2 at the age of 50. He had been with the company since 1966 and resided at 64 Eastern Ave., Deer Park.

LAWRENCE LANGAN of Manufacturing, Grumman Houston Corporation, died Aug. 4 at the age of 48. He had been with the company since 1956 and resided at League City, Texas.

Personals

On behalf of my family and myself I wish to thank all my friends and coworkers for their kind expressions of sympathy during the recent loss of my mother. Dick Cleary

We wish to express our appreciation and thanks for the kindness and generosity extended by my co-workers and friends during the recent loss of my mother. Leonard J. Drace and Family

Tony and Terry Forte wish to express their thanks to all who shared their grief in the loss of their son Eddie Forte.

I would like to thank everyone for their prayers and visits while I was in Mid-Island hospital. The telephone calls and candy were appreciated. Carlton Davis

New lights a bargain

Facilities is putting a lot of light on some subjects, for a lot less money than they have been.

A new system of high pressure sodium lamps which give off a yellow-orange light is being installed in parts of Plant 2, in one of Calverton's hangars, and is already in the new CAMMACORP building in Stuart. According to Facilities' Ed Smiddy, these 400 watt lamps replace 1000 watt fluorescent and mercury vapor lamps and give off even more light. "They will pay back the cost of installation in about two years. After that, we'll be paying half what we paid before for lighting costs," Smiddy says.

milestones

(Continued from page 8)

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Joseph A. Kovaleski, Jr., Stockrooms (1)
Stephen G. Arey, Prog. Matl. Mgmt. (1)
John A. Tilders, ILS Digital TPS Eng. (1)
Joseph C. Bergwerk, ILS Sub-Sys. Eng. (1)
Alexander Mintz, ILS Equip. Des. Eng. (1)
Paul H. Humbert, Prog. Mgmt-F-14A (1)
George Vaiana, Router & Shear (2)
Thomas Rosano, Small Parts Fab. (2)
Frank Pita, Pride Line (2)
Benjamin Hurley, Tanks & Ducts (2)
Vernell Cole, Tanks & Ducts (2)
Elizabeth Fick, Prod. Plnng. (2)
Joseph T. Lynch, Prod. Plnng. (2)
Andrew Solomito, Jig Details & Sub-Assy. (2)
Victor Vilcins, Mfg. Factory Plnng. (2)
Edward C. Tung, Veh. Liaison Eng. (2)
James E. Howlett, Q.C. Lab. (2)
James Clifton, Small Parts Fab. (3)
Lonnie Frazier Jr., Alodine (3)
Caritha Walker, Spotweld (3)
Charles E. Hunter, Assemblies (3)
Arnold R. Moeller, Mach. Op-Parts Ctl. (3)
James Seymour, Assy. Methods (3)
Peter A. Lambiaso, Maint-Rearrangement (3)
Arthur T. Brown, Q.C. Inspect. Plnng. (3)
Rodney Bullard, Final Assy. Struct. (4)
George List, Syst. Text/Flt. Integ. (4)
Roger A. Schaefer, ILS Training Sys. Eng. (4)
Nathaniel Mays, Maint-Rearrangement (5)
Johnnie Herron, Maint-Facil. Equip. & Gen. (5)
Joseph A. Genovese, Simu. Devel. & Eval. (5)
Nancy T. Diele, Fin. Op/Secretaries (5)
Edward S. Talley, Corp. Sys. (5)
Walter J. James, Fluids (6)
Gregory P. Shadlich, Elec. Install. (6)
Paul J. Bigin, Elec. Install. (6)
Joseph A. Buonaiuto, Structures (6)
Patricia L. Rodriguez, Indust. Eng. (6)
Stanley A. Bach, Assy. Methods & Plnng. (6)
Ralph E. Scheider, Manpower Budg. & Cost Stat. (6)
Harold F. Copley, Final Assy. Insp. (6)
Charles J. Niegocki, Trans-Equip. Maint. (7)
Mary M. Brooks, Food Service (7)
Lynn T. Chestnut, FTT FLT Dynamic & Load (7)
Anthony N. Gravina, Corp. Instru. Syst. (7)
Charles R. Hedberg, Prop & Fluid Sys. Prd. Supp. (7)
Richard B. Rowehl, Prop & Fluid Sys. Prd. Supp. (7)
Charles E. Anderson, Airport Ops. (7)
Donald Buniski, Flt. Avionics (8)
Helen Long, Mfg. Sched. (9)
John F. Kempey, Prog. Contracts (9)
Rudolph Gamberini, Maint-Rearrangement (12)
John B. Coleman Jr., Maint-Facil. Equip & Gen. (12)
James H. Rembert, Elements & Mat. Test Lab. (12)
Clifford G. Blackwell, Hydraulics (14)
Thomas J. Pannullo Jr., Maint-Rearrangement (14)
John R. Tripp, Computer Des. (14)
Peter L. Anderson, Camera Graphics (15)
Herman J. Cornils, ILS Tech. Writ. (15)
Bernard Shansky, ILS Prod. (15)
James J. Caparella, Cent. Ship. Pkng & Handl. (17)
Curtis H. Dolderer, Plt. Protection (18)
Frank R. Crisci, Trans-Equip. Maint. (20)
Thomas W. Dilley Jr., ILS Tech. Servs. (25)
Donald C. DeVita, Struct. Anal. (25)
George N. Tsolakis, Commun. Nav. & I.F.F. (25)
David E. Bennett, Sys. Dev. & Integ. Proj. Mgt. (25)
John E. Lenahan, Corp. Sys. (25)
Ruth J. Lashinsky, Benefits (28)
Joseph F. Placenza, Benefits (28)
Carol A. Glasser, Sub. Secretarial Prog. (28)
Gloria T. Moore, Matl. Short. Cntl. (30)
Joseph S. Canciglia, Reqts. Plnng. (30)
Irving Minsky, Mach. Parts/Matl. (30)
Robert Hackenfort, Matl. Sys. (30)
Charles N. Talley, Tech. Reqts. (30)
Ciro V. Prizzi, Tech. Reqts. (30)
Michael J. Joyce, Tech. Reqts. (30)
Bette F. Zaccoli, Property Mgmt. (30)
Richard F. Walsh, FAC Admin. (30)
Paul J. McGuire, Supp. Plnng. & Cntl. (30)
Albert L. Schneider, Gen. Acct. (30)
Joseph Mezzatesta, ILS Prog. Cntrls. Mgt. (35)
Joseph Melynis, Sys. Cost/Perf. Anal. (35)
Frank J. Suhecki, Prog. Contracts (35)
Biagio R. Lanzo, Instruct/Anal. (39)
George Weinstein, ILS Syst. Concepts (40)
Laurence J. Gould Jr., ILS Ops. Supp. (40)
George C. Jantzen, ILS Auto Circuit Anal. (40)
William Sneider, Config. Data Mgmt. (40)
Arthur N. Apgar, Plt. Protection (43)
Joseph A. Famiglietti, Spc. Prototype-Temp. (43)
Howard R. Dilg Jr., Prog. Mgt. (43)
Raymond T. Schmidt, Elect. Cable Fab-Temp. (44)
Bertha F. Krenek, Elect. Harn Fab. (44)
Bruce J. Armour, ILS Training Sys. Eng. (47)
James T. Odom, Mgmt & Cntrl. (56)
George C. Schneiderhan, Machine Shop (56)
Israel S. Rosas, Machine Shop (56)
Edgar Stricklin, Maint. Admin. (56)
Orland P. Clark, Maint. Admin. (56)
John A. Kelly, Maint. Admin. (56)
George R. Hulse, Quality Cntrl. (77)
Harry Bibbee, Quality Cntrl. (77)
Nick Maxim, Prototype/Detail Parts (77)
Thomas J. Reilly, Base Mgmt. (88)
Charles H. Brown, Base Mgmt. (88)
Paul Brown, Maint. Admin. (111)
Joseph A. Provenzano, GAC St. Augustine (265)
Alvin E. Blake, Logistics Servs. (269)
Jerry L. Schad, Air Fram Sys. (280)

Unit values

Investment Plan
Unit Values
as of
June 30, 1982

Equity Fund. $1.560 ($1.583)
Fixed Income Fund. $2.627 ($2.688)
Guaranteed Income Fund . . $1.460 ($1.446)
Company Common Stock Fund $30.25 ($27.063)
(May 31, 1982 values are in parenthesis)

calendar

Aikido Club: every Wed., 5 p.m., Recreation bldg. Beginners class, guests welcome. M. Brooks, Ext. 115-6171/H. Brondo, Ext. 2719

Alcoholics Anonymous: every Mon., 4:30 p.m., Pl. 15, conference room C, closed meetings; Personnel Relations, Ext. 3521, Calverton: Chemical Dependency Discussion Group, every Mon., 4-5 p.m., Guard Hdq.; open meeting. Personnel, 369-6759, C. Robb, Ext. 117-7038

Amateur Radio Club: every 3rd Wednesday of the month. Plant 5 conference room BD-1, 5 p.m. D. Townes, Ext. 2889

Coin Club: (Calverton) every Fri., noon lunch, Pl. 6 conference room. W. Kondratowicz, Ext. 6680

Computer Club: 1st and 3rd Mondays of every month, Recreation bldg., 5 p.m. Computer discussion and demonstration/beginner to advanced programming. Guests welcomed. J. Hayne, Ext. 5556/P. Frumkin, Ext. 2797

Dance Club: every Wed., 5-8 p.m., Recreation bldg. Guests welcome. G. Cupolo, Ext. 4155

Equestrian Club: every weekday, Saddle Brook Farm, E. Northport, 6 p.m. New members welcomed. Grumman employees and immediate family only. J. Eisenhower, 115-6003

Fencing Club: every Wed., 4:30-6:00 p.m., Recreation Bldg. Free instructions, guests welcomed. J. Hayne, Ext. 5556/P. Chaldaris, Ext. 3638

Folk Dancer's Club: (Calverton) every Thurs., 2nd floor, Pl. 6, lunchtime, Grumman employees only. J. Hamelman, Ext. 117-6835

Karate Club: every Tues. and Thurs., Recreation bldg., beginners 4:30 to 5:30 p.m., advanced 5:30 to 7:00 p.m., black belt instructors, physical and mental development; guests welcomed. T. Ortiz, Ext. 4555

Model Railroad Society: every Wed., 7 p.m., Recreation bldg. Regular meeting. Guests welcomed. R. Muntz, Ext. 6865

Photography Club: Mon., Sept 13, Recreation bldg., 5 p.m. Guests welcomed. A. Seidon, Ext. 6492

Roller Skating Club: every Thurs., Levittown Skating Rink, 7:30 to 11 p.m. Lessons 6:30 to 7:30 p.m. Guests welcombed. H. Denen, Ext. 2291

Stamp Club: First three Wed. of every month; 5-6 p.m., Pl. 35 cafeteria; trading sessions and discussion. S. Hoops, Ext. 3926/8586

Tap Dancing Club: every Mon., Recreation bldg., 4:45 to 5:30. Beginners and guests welcomed. P. Tropea, Ext. 8091

Toastmasters: every Wed., Plant 111, Grumman Corp. Hdqtrs, lower concourse. Regualr meeting. Grumman employees welcomed. C. Peterson. Ext. 4930

Tennis Club: Wed., Sept. 15, Recreation bldg., 5 p.m. Beginner to advanced players welcomed. Guest speaker, refreshments. R. Benoit, Ext. 115-3550

Personals

I would like to express my sincere thanks to all for the sympathy and kindness extended to me and my family during the loss of my father. **Robert D. Taylor**

My wife and I would like to give our heartfelt thanks to those who have been most thoughtful and concerned during our stressful times. **Bob and Marge Aha**

My family and I wish to express our thanks and appreciation for your thoughtfulness, kindness and sympathy during the recent loss of my brother, August J. Hendel. **Theo Cilento**

scorecard

West Point tix

Recreation has tickets for the Army vs. Boston College game at West Point on Saturday, October 23; tickets are $10 each. If you'd rather leave the driving to someone else, you can catch a bus from the Plant 3 parking field. Bus tickets are $12.

The bus leaves at 8 a.m. The cadet parade begins at 11:55 a.m. and the kick-off is at 2.

Tomcats in tourney

The Grumman Tomcats of Stuart Operations earned an invitation to the Florida State Men's Class A Industrial Tournament by finishing second in the District Four tourney.

In the first game, Grumman met the Hollywood Police Department, and promptly arrested the cops with a score of 6-4. The Tomcats followed that victory with a heartbreaker loss to IBM of Boca Raton, 3-1.

In the losers' bracket, Grumman faced the police squad once again. The varsity was victorious, 10-2. The final game pitted Grumman against the undefeated powerhouse team from IBM. IBM kept its tourney record unblemished and blanked Grumman, 9-0.

Supplying the bat power for Grumman were Chester Matheny, Skip Hall, Bill Stevens, Steve Hackley and Chuck Singletary who hit an inside the park homerun.

Defensive stars for the Tomcats were Lucious Raysor, Bob Smith and Singletary, reports team manager Danny Straus. Clarence Delancy pitched three games and finished with a record of 2-1. Bill Stevens pitched the final game.

One mighty swing

Add three more to the list of Grumman golfers who've gained fame by getting holes-in-one.

There is Horace Holloman, who used an eight-iron to put the ball in the cup on the 12th hole — a par three, 162 yarder — at Hauppauge Country Club.

Then there is Pete Belies. He put the dimpled little ball into the cup with one swing of his three-wood on the par three, 239 yard, eighth hole at the Dix Hills Country Club.

Howard Fraser played through 40 years of golf before he got his first hole-in-one. Like Belies, he had a magic three-wood in his bag and used it to ace the 222 yard third hole on the Crab Meadow golf course.

Bye bye birdie

Ruth 'Moochie' Klunk

As one of only four women golfers in the Grumman Stuart Ops. Sunshine League, Ruth "Moochie" Klunk is used to a lot of ribbing from her male counterparts. But she never really counted on being called "killer".

The golfing episode took place recently when she and her partner Kay Danza took on the formidable twosome of Virg Clerico and Bill Mang. The first two holes at the Martin County Golf Course were uneventful.

At the third tee, Moochie earned the nickname "killer" as the result of one swing of a three-wood. "I hit a perfect tee shot on the par-three 16th hole. It looked like a sure birdie," recalled Moochie, who sports a 15-stroke handicap.

"Then, klunk. . .the ball hit a flying blackbird squarely on the skull killing it instantly," says the weekly golfer. "The bird fell like a rock, the ball continued a bit, then dropped 20 feet short of the green. It took a chip and two putts to hole out for a bogey four."

Before she holed out though, scores of blackbirds swarmed over the foursome. "It was scary," says Moochie. "All I could think of was Alfred Hitchcock's movie, The Birds. I was afraid they would attack."

Adds partner, Kay Danza, "They made a lot of noise, and kept swooping down on us. . .for about five minutes, then they flew away."

Since then, a lot of fellow Grummanites good-naturedly call Moochie, "Killer Klunk." By the way, even though she bogeyed that hole she went on to beat her opponent Bill Mang.

Women only

The women's Just For Fun league is looking for some bowlers to fill out its rosters. They bowl on Tuesday nights from 5 to 7 p.m. in South Levittown lanes. The first bowling ball of the season rolls down the lanes on September 14. Call Dee Davis, Ext. 3597, to join.

Last face-off

The last tryout session for the Grumman varsity ice hockey team will be tomorrow at the Cantiague Park rink in Hicksville, Long Island. If you weren't sure before but now want to be part of the action call Don White, Ext. 9364, Theo Monahos, Ext. 9685, or Ron Stover, Ext. 9747, right now.

The Long Island Industrial Hockey League needs volunteers to work as timekeepers, announcers, reporters and for other jobs. Just give one of the three fellows a call if you are interested.

Now that's an Izod shirt! *Bob LaManna and Jack Coward of Plant 66 play golf the way it's supposed to be played: They always let a faster golfer play through.*

Standing proud. Winners of the annual Grumman golf championship and kickers' tourney are: (L to R) kneeling - Marie Smith, Alan Beecher, Mark Guss, Melinda Brumsey; middle row - Don Waller Jr., Caesar Roscigno, Pete Obedzinksi, Orlando Vescio, Ziggy Niewierowski, Kurt Hoffman; back row - Daryl Burgess, Willie Lee, Sandy Hawk, Larry Maloney, Fred Von Seggern, and Joan Pavlat.

Burgess, Hawk and Lee pace Grumman golf championship

Over 100 Grumman men and women took the day off on Wednesday, August 11, to compete in the annual Grumman Golf Championship and Kickers' Tournament at the Pine Hills Country Club.

Top prize for low gross went to Daryl Burgess. He finished the course with a 74. Low gross honors in the senior division was grabbed by Willie Lee for his score of 75. Sandy Hawk won the women's division with 103.

Low net trophy winners were Larry Maloney (86-26=60) in the men's division; Fred Von Seggern (85-21=64) in the seniors competition; and Joan Pavlat (114-44=70) for the women. Low net using the Callaway handicap system was achieved by Don Waller Jr. (76-6=70).

In the longest drive competition, Alan Beecher and Joan Pavlat outdrove all golfers. Mark Guss and Melinda Brumsey took home prizes for their closest-to-the-pin feats.

Second place trophies were picked up by the following Grummanites: Caesar Roscigno (low gross-men), Pete Obedzinski (low gross-seniors); Orlando Vescio (low net-men); Ziggy Niewierowski (low net-seniors); and Kurt Hofmann (low net-Callaway).

Georgians are perfect

The Milledgeville Grumman Varsity Softball team made it a perfect season (24-0) as they captured first place in the Milledgeville Baldwin County Recreation Department Industrial League. With a 55-13 overall record, the team will now prepare for the Georgia Recreation and Parks Society district and state championships starting August 20 in Milledgeville.

Competing in its last tournament, the Grummanites finished fourth out of 16 in the Amateur Softball Association state tournament in Blackshear, Ga. on July 31 and August 1.

"Things are looking good for us," said assistant Coach Wendell Barr. "I feel that we have a decent chance to win this next tournament, but the competition will be tough." Grumman has captured three tournaments and two second place finishes thus far.

"Our team defense and our overall speed have made the difference," Barr said. "I'm a little worried about our hitting. We're not much of a power team — we're a team that hits lots of singles."

Grumman will need as many hits as they can get since they will be facing stiff competition. Last year's state champion Rheem and Gulfstream of Savannah figure to give the Grummanites a tough battle.

"We're ready for them," says Barr. "We want to prove ourselves."

No butts about this course

More than 300,000 smokers have kicked the habit through Smokenders. How about you?

Smokenders will conduct a free introductory session at Grumman on September 14 at 5 p.m. in the Plant 28A auditorium. This session will last about one hour and is opened to all Grummanites and their families. All attendees will receive a free "Get-Ready-to-Quit" kit.

Should an attendee decide it is time to quit smoking through the Smokenders method, a special preferred tuition is offered. Instead of the regular tuition of $495, Grummanites and their families only have to pay $295 per person.

If there are at least 10 registrants, Smokenders will establish a seminar right here at Grumman starting on Tuesday, September 21 at 5 p.m. Each meeting lasts approximately one-and-a-half to two hours.

If less than 10 people sign up, those registrants will be invited to join one of the Smokenders public seminars on Long Island — at the preferred tuition rate.

For more information, call Chet Baumgartner of Grumman Recreation, Ext. 2133.

Great River swamps their opponents

For the second year in a row, Great River varsity team manager Frank Cioffi called PLANE NEWS in July. Once again, Frank's voice was hoarse — evidence of a long weekend of cheering.

"We won it again!" Frank croaked. Some might say the Great River softball squad not only won the annual Suffolk County Industrial "B" Invitational, they ran away with the title.

Led by MVP Ed Cava, the varsity swept the tourney with five victories in a row, scored 98 runs on 110 hits and slammed 14 homers. Cava who played third base and outfield went 17 for 23 from the batter's box for a .739 batting average.

"The team was awesome," states Cioffi. "We came from behind three times in three games. The guys on the field had a lot of help from the bench and the coaches."

Victims of the Great River squad were Cardion, 8-3; Germaine Monteil, 18-2; Estee Lauder, 27-18; Allstate Insurance, 26-6 and 19-9.

Members of the victorious Great River softball team are: coach Bill Eliopoulos, Ed Urban, Carmine Femia, Roy Freese, Frank Fusco, Mark Entwisle, Ed Cava, Joe Rivera, Rich Sinniger, Dan Wasilewicz, Vinny Piampiano, Robert Avitabile, Joe Broderick, Niel Napolitano, Tony Rodriguez, and Tom Gaines.

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